

# OFFICIAL REGISTER OF HARVARD UNIVERSITY

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## THE HARVARD SCHOOL OF PUBLIC HEALTH

55 SHATTUCK STREET, BOSTON, MASS.

INCLUDING  
COURSES OF INSTRUCTION  
FOR 1940-41



PUBLISHED BY HARVARD UNIVERSITY

## OFFICIAL REGISTER OF HARVARD UNIVERSITY

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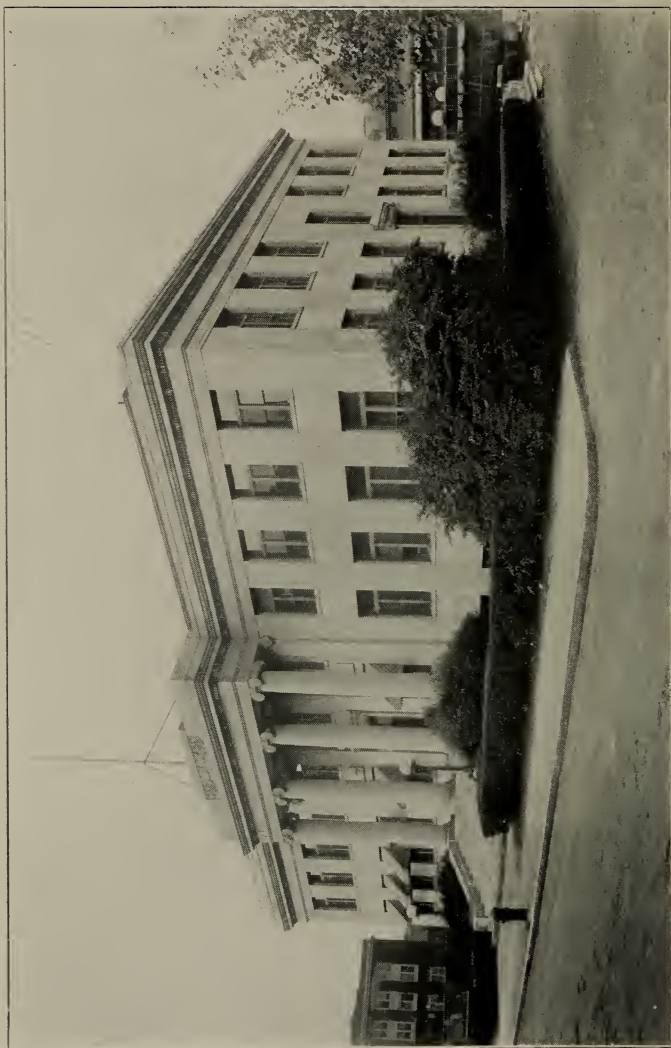
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These publications include the reports of the president and of the treasurer; the general catalogue issue; the announcements of the College and the several professional schools of the University; the courses of instruction; the pamphlets of the several departments; and the like.

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HARVARD SCHOOL OF PUBLIC HEALTH

ANNOUNCEMENT  
OF THE  
HARVARD SCHOOL OF  
PUBLIC HEALTH

55 SHATTUCK STREET, BOSTON, MASS.

OF  
HARVARD UNIVERSITY



1940

PUBLISHED BY HARVARD UNIVERSITY



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## CALENDAR

### 1940

<i>Sept. 20, Friday.</i>	Registration of students.
<i>Sept. 23, Monday.</i>	ACADEMIC YEAR BEGINS.
<i>Sept. 26, Thursday.</i>	Payment of the first instalment of the tuition fee and one-half the medical and infirmary fee is required on this date.
<i>Oct. 12, Saturday.</i>	Columbus Day: a holiday.
<i>Nov. 11, Monday.</i>	Armistice Day: a holiday.
<i>Nov. 28, Thursday.</i>	Thanksgiving Day: a holiday.
<i>Nov. 30, Saturday.</i>	Payment of the second instalment of the tuition fee is required on or before this date.

RECESS FROM DEC. 23, 1940, TO JAN. 2, 1941, INCLUSIVE

### 1941

<i>Jan. 3, Friday.</i>	Last day for receiving theses for February degrees.
<i>Jan. 20, Monday.</i>	Mid-year examinations begin.
<i>Jan. 27, Monday.</i>	SECOND HALF-YEAR BEGINS.
<i>Jan. 30, Thursday.</i>	Payment of the third instalment of the tuition fee and one-half the medical and infirmary fee is required on or before this date.
<i>Feb. 22, Saturday.</i>	Washington's Birthday: a holiday.

RECESS FROM MARCH 30 TO APRIL 6, INCLUSIVE

<i>April 19, Saturday.</i>	Patriots' Day: a holiday.
<i>April 30, Wednesday.</i>	Payment of the fourth instalment of the tuition fee is required on or before this date.
<i>May 1, Thursday.</i>	Last day for receiving theses for June degrees.
<i>May 26, Monday.</i>	Second semester examinations begin.
<i>May 30, Friday.</i>	Memorial Day: a holiday.
<i>June 2, Mon. and June 3, Tues.</i>	Final Comprehensive Examinations.
<i>June 19, Thursday.</i>	COMMENCEMENT.

SUMMER VACATION, FROM COMMENCEMENT TO SEPTEMBER 21, INCLUSIVE

In order to insure equal periods of time for the various courses, the following division of the academic year has been arbitrarily made:

<i>Mon. Sept. 23-Sat. Oct. 19</i>	FIRST MONTH
<i>Mon. Oct. 21-Sat. Nov. 16</i>	SECOND MONTH
<i>Mon. Nov. 18-Sat. Dec. 14</i>	THIRD MONTH
<i>Mon. Dec. 16-Sat. Jan. 25</i>	FOURTH MONTH <sup>1</sup>
<i>Mon. Jan. 27-Sat. Feb. 22</i>	FIFTH MONTH
<i>Mon. Feb. 24-Sat. Mar. 22</i>	SIXTH MONTH
<i>Mon. Mar. 24-Sat. April 26</i>	SEVENTH MONTH <sup>2</sup>
<i>Mon. April 28-Sat. May 31</i>	EIGHTH MONTH

<sup>1</sup> Christmas recess from Dec. 23, 1940, to Jan. 2, 1941, inclusive.

<sup>2</sup> Spring recess from March 30 to April 6, 1941, inclusive.



# THE PRESIDENT AND FELLOWS OF HARVARD COLLEGE

---

This Board is commonly known as the CORPORATION.

---

## PRESIDENT

JAMES BRYANT CONANT, A.B., Ph.D., LL.D., S.D., L.H.D., D.C.L.  
17 Quincy St., Cambridge

## FELLOWS

HENRY LEE SHATTUCK, A.B., LL.B., LL.D.  
50 Federal St., Boston

ROGER IRVING LEE, A.B., M.D. 264 Beacon St., Boston

GRENVILLE CLARK, A.B., LL.B. 31 Nassau St., New York, N.Y.

CHARLES ALLERTON COOLIDGE, A.B., LL.B.  
50 Federal St., Boston

HENRY JAMES, A.B., LL.B., LL.D.  
522 Fifth Ave., New York, N.Y.

## TREASURER

WILLIAM HENRY CLAFLIN, JR., A.B. 24 Milk St., Boston

---

## SECRETARY TO THE CORPORATION

JEROME DAVIS GREENE, A.M., LL.D.  
25 Massachusetts Hall, Cambridge

## THE BOARD OF OVERSEERS

The PRESIDENT and the TREASURER of the University, *ex officio*, and the following persons by election:—

### 1941\*

GEORGE THOMAS MOORE, S.B., Ph.D.

Missouri Botanical Garden, St. Louis, Mo.

WILLIAM RICHARDS CASTLE, A.B., LL.D., D.C.L.

2200 S St., N.W., Washington, D.C.

LEVERETT SALTONSTALL, A.B., LL.B., LL.D.

82 Devonshire St., Boston

HENRY STURGIS MORGAN, A.B.

2 Wall Street, New York, N.Y.

BLISS PERRY, A.M., L.H.D., Litt.D., LL.D.

5 Clement Circle, Cambridge

### 1942

AUGUSTUS NOBLE HAND, A.M., LL.B., LL.D.

U. S. Circuit Court of Appeals, New York, N. Y.

ELLERY SEDGWICK, A.B., Litt.D., L.H.D.

14 Walnut St., Boston

ROBERT HAYDOCK HALLOWELL, A.B.

60 State St., Boston

CHANNING FROTHINGHAM, A.B., M.D.

1153 Centre St., Jamaica Plain

GEORGE HAROLD EDGELL, A.B., Ph.D.

Museum of Fine Arts, Boston

### 1943

CHARLES FRANCIS ADAMS, A.B., LL.B., LL.D.

15 State St., Boston

JAMES DEWOLF PERRY, A.B., S.T.D., D.D., LL.D.

10 Brown St., Providence, R. I.

\* The term expires, in each case, on Commencement Day of the year indicated.

JOHN STEWART BRYAN, A.M., LL.B., Litt.D., LL.D.  
 % The News Leader, Richmond, Va.  
 GEORGE PEABODY GARDNER, A.B.  
 10 Post Office Sq., Boston

## 1944

GEORGE RUBLEE, A.B., LL.B., LL.D.  
 701 Union Trust Bldg., Washington, D.C.  
 LANGDON PARKER MARVIN, A.M., LL.B.  
 48 Wall St., New York, N. Y.  
 HENRY PARKMAN, JR., A.M. 82 Devonshire St., Boston  
 LLOYD KIRKHAM GARRISON, A.B., LL.B.  
 University of Wisconsin, Madison, Wis.

## 1945

JOHN LORD O'BRIAN, A.B., LL.B., LL.D.  
 37 Church St., Buffalo, N. Y.  
 DAVID CHEEVER, A.B., M.D. 193 Marlborough St., Boston  
 ROBERT WOODS BLISS, A.B., LL.D.  
 Dumbarton Oaks, Georgetown, Washington, D. C.  
 WILLIAM TUDOR GARDINER, A.B., LL.D. Gardiner, Me.  
 HENRY CABOT LODGE, JR., A.B.  
 United States Senate, Washington, D. C.

---

SECRETARY OF THE BOARD OF OVERSEERS, *Emeritus*

WINTHROP HOWLAND WADE, A.M., LL.B.  
 50 Congress St., Boston

## SECRETARY OF THE BOARD OF OVERSEERS

JEROME DAVIS GREENE, A.M., LL.D.  
 25 Massachusetts Hall, Cambridge

## ADMINISTRATIVE OFFICERS

*President:* JAMES B. CONANT, A.B., Ph.D., LL.D., S.D., L.H.D., D.C.L.  
Office, 5 University Hall, Cambridge.

*Dean:* CECIL K. DRINKER, S.B., M.D., S.D.  
Office, School of Public Health, 55 Shattuck Street, Boston.

*Assistant Dean:* EDWARD G. HUBER, A.B., M.D., Dr.P.H.  
Office, School of Public Health, 55 Shattuck Street, Boston.

*Secretary:* MRS. MARGARET G. BARNABY, A.B.  
Office, School of Public Health, 55 Shattuck Street, Boston.

*Physician to Students:* EUGENE C. EPPINGER, M.D.  
Office, Room 103, Building A, Harvard Medical School, 25 Shattuck Street, Boston.

## ADMINISTRATIVE BOARD

President JAMES B. CONANT, A.B., Ph.D., LL.D., S.D., L.H.D., D.C.L.  
(*ex officio*).

CECIL K. DRINKER, S.B., M.D., S.D., *Dean*, and *Professor of Physiology*.

EDWIN B. WILSON, A.B., Ph.D., *Professor of Vital Statistics*.

HANS ZINSSER, A.M., M.D., S.D., *Professor of Bacteriology*.

EDWARD G. HUBER, A.B., M.D., Dr.P.H., *Assistant Dean* and *Assistant Professor of Public Health Practice*.

JOHN E. GORDON, S.B., Ph.D., M.D., *Professor of Preventive Medicine and Epidemiology*.

## COMMITTEE ON ADMISSIONS

LEROY D. FOTHERGILL, *Chairman*; CECIL K. DRINKER, EDWARD G. HUBER, DONALD L. AUGUSTINE.

## COMMITTEE ON EXAMINATIONS

EDWIN B. WILSON, *Chairman*; CECIL K. DRINKER, EDWARD G. HUBER,  
· LEROY D. FOTHERGILL, GORDON M. FAIR.

# THE HARVARD SCHOOL OF PUBLIC HEALTH

## HISTORICAL STATEMENT

THE HARVARD SCHOOL OF PUBLIC HEALTH first gave instruction to students in the academic year 1922-23. For many years activity in public health had been rapidly increasing in Harvard University. The influence of the University upon public health, through the pioneering and long-continued efforts of Dr. Henry P. Walcott, for many years senior member of the Harvard Corporation, was important and far-reaching. Courses in the various departments had been gradually developed to meet the need for men trained to conserve public health. The field of public health is so broad that it is not strange that this School did not find its origin in any one department. The records show certain important steps in what has been essentially a gradual development. In 1909 a department of Preventive Medicine and Hygiene was established in the Medical School. The degree of Doctor of Public Health was first conferred in 1911. In this same year a department of Sanitary Engineering was inaugurated in the Engineering School. In 1913 a department of Tropical Medicine was formed. In 1918 a Division of Industrial Hygiene, with clinical and laboratory facilities, was organized in the Harvard Medical School.

Besides these activities which were directly concerned with the training of men for public health work, research was being carried on in the regular departments of the Harvard Medical School in Bacteriology, Pathology, Parasitology, Physiology, Biochemistry, and others, which had a less direct but very real bearing on the development of the science of public health. On analysis it appeared that there were many activities under the various faculties of Harvard University, besides those of Medicine and Engineering, that had some bearing on public health. Under the Faculty of Arts and Sciences there were many courses, such as those in Physics, Chemistry, Zoölogy, Social Ethics, etc., which formed in certain cases important parts of the training of individuals for work in public health. In addition, there had been established in 1914, under the Faculty of Arts and Sciences, a department of Hygiene, which undertook the supervision of the health of the students in its broadest aspect. This department had collected much data of considerable value in public health.

In 1913 the "Harvard-Technology" School of Public Health was organized. It was under the joint management of Harvard University

and the Massachusetts Institute of Technology. This pioneer School continued to operate until the fall of 1922, when it was superseded by the new Harvard School of Public Health. However, the Massachusetts Institute of Technology continues to coöperate with the Harvard School of Public Health and also offers courses in public health through its department of Biology and Public Health.

As a result of these activities, the University found itself in possession of a substantial nucleus upon which to erect a new School of Public Health of larger scope, and in 1921 received from the Rockefeller Foundation a generous endowment for this purpose, known as the Henry P. Walcott Fund of Harvard University. This gift made it possible: first, to correlate and to enlarge the various departments already existing, such as Preventive Medicine and Hygiene, Bacteriology, Sanitary Engineering, Tropical Medicine, Parasitology, and Industrial Hygiene; second, to create a department of Vital Statistics and to develop new special fields of instruction, such as Public Health Administration, Child Hygiene, Mental Hygiene, Communicable Diseases, and Ventilation and Illumination; and lastly, to purchase a building, standing on land adjacent to that occupied by the Medical School, in which to house the administration and the various groups concerned with the work of public health.

## GENERAL STATEMENT

### PURPOSE

The practice of public health is founded upon a broad knowledge of Public Health Practice, Epidemiology, Sanitation and Vital Statistics. All other subjects constitute specialities within these four fields. It is the object of the School to provide the scientific groundwork which underlies efficient health administration, together with some personal acquaintance of modern public health procedures of the best type. To this end lectures, field surveys, hospital exercises and laboratory work are offered by members of the Faculty and by special instructors actively engaged in public health work. Students may thus prepare themselves for careers in teaching, administrative, field or laboratory positions, while special opportunity is offered to those who desire to contribute to knowledge through research or field investigations.

### FACILITIES

The School of Public Health is located at 55 Shattuck Street, Boston. The building, formerly occupied by the Infants' Hospital, stands on land adjacent to that occupied by the Medical School and in close proximity

to the Peter Bent Brigham Hospital, the Children's Hospital, the Collis P. Huntington Memorial Hospital, and the Lying-in Hospital. The Antitoxin and Vaccine Laboratory of the Massachusetts Department of Public Health is within a comparatively short distance of the School. The Boston Psychopathic Hospital is also within a few blocks. Thus the School of Public Health, though a definite entity, is an integral part of a great medical center with splendid facilities for development of the teaching of the theory and practice of public health. Certain members of the Faculty of the School are also members of the Faculty of Medicine, and the Library, laboratory facilities and hospitals are utilized by both Schools to great mutual advantage. In Cambridge the graduate departments of the University offer opportunities for work in certain fields of special interest to public health students. For example, students may elect courses in sociology, business administration, the theory of government, common law, sanitary engineering and other subjects.

Various types of well organized public health activities lie within a short distance of the School. These include health departments of cities that are residential in character, small cities with a single large industry, and organized rural health districts. Close affiliation is maintained between the School and the State Department of Public Health, thus assuring students an opportunity not only to observe but actually to participate in state health department activities under competent direction. The Boston City Health Department has a fully developed system of Health Units, giving opportunity to study localized health organization and the coöperative activities of voluntary and official health and welfare agencies. The Health Department of the City of Newton, whose health officer is on the teaching staff of the School, has been developed as a special training ground for students of local public health administration in all its phases.

Hospitals and clinics affiliated with the School of Public Health offer facilities for training in child hygiene, tuberculosis control, treatment of contagious diseases of childhood, care of mental defectives, rehabilitation of crippled children, correction of dental defects, and other types of activity which relate directly to the promotion of health and social welfare. Opportunity is also offered for training in hospital administration under competent direction.

Boston being the center of a great industrial metropolitan area, students have opportunity to observe at first hand all the public health problems that large industrial populations must face, while the medical and technical personnel of selected industrial establishments offer training in industrial hygiene.

Non-official health organizations such as the Boston Health League, the Community Health Association with its large visiting nurse pro-



gram, the Nutrition Clinic of the Boston Dispensary, the Judge Baker Foundation for the study of delinquency, the Massachusetts Tuberculosis Association, the School of Public Health Nursing and the School for Social Service of Simmons College, as well as other types of organizations actively engaged in public health or allied activities, offer opportunities to students in the School.

## ADMISSION REQUIREMENTS

Candidates for admission to the School must satisfy the Committee on Admissions of their academic fitness. The mere record of courses completed is not sufficient evidence of the fitness of a prospective student. The Committee may require further evidence of present ability to utilize the training received and to profit by the courses administered by the School. The right is reserved to reject any applicant.

All inquiries and communications regarding admission should be addressed to the Secretary, Harvard School of Public Health, 55 Shattuck Street, Boston, Mass.

## DEGREES

### Doctor of Public Health

The degree of Doctor of Public Health is not obtained by the mere completion of a group of courses and submission of a thesis reporting routine observations. It is granted on evidence of real scholarship in the fundamental aspects of public health and presentation of a thesis which displays independent ability and originality in a special field. Two years of work at the School are usually necessary to obtain the degree of Doctor of Public Health. In instances where previous work has been exceptionally thorough a single year may suffice, but no assurance can be given of this, since the preparation of an acceptable thesis may readily require more time than was anticipated.

*Prerequisites:* Candidates for this degree must present satisfactory evidence of having received the M.D. degree, or its equivalent, from an approved medical school.

*Residence:* At least one academic year must be spent in residence at this University.

*Candidacy for the degree:* To qualify as a candidate the student is required to pass with honors a comprehensive examination, which may be written or oral, in the subject matter of the courses which form the curriculum for the Master of Public Health degree. This examination may be taken without reference to the length of residence as a student.

*Thesis:* Upon admission to candidacy the student must present a program of independent investigation to the Administrative Board. The



results of this investigation will form the basis of the thesis which must be presented as one of the final requirements for graduation.

Two copies of the thesis must be received by the Dean's Office on or before the first day of January for degrees conferred in February, and on or before the first day of May for degrees conferred in June. Each copy must be accompanied by a summary not exceeding 1200 words in length, which shall indicate clearly the purposes, methods and results of the investigation.

*Final examination:* After acceptance of the thesis, the candidate will be called before the Faculty for an oral examination upon the thesis and upon those branches of science which are of especial importance for the field of the thesis.

### Master of Public Health

*Prerequisites:* Candidates for this degree must present satisfactory evidence of having received the M.D. degree from an approved medical school. Qualified graduates from approved dental or veterinary schools may be admitted as candidates for this degree at the discretion of the Committee on Admissions.

*Residence:* At least one academic year must be spent in residence at this University.

*Programs of study:* All candidates for this degree are required to elect a sufficient number of courses to make a total of twenty credit units each semester. Due consideration will be given to the respective needs of the candidate, but the program he desires to elect must meet the approval of the Administrative Board. The courses offered and the standard credit units for each course are given below; the credit units may be altered by the Administrative Board to meet the exigencies of special situations, and other courses in the University may be substituted for special reasons.

#### *First Semester*

	Credit Units
Child Health A	4
Syphilis and Gonorrhea	3
Vital Statistics A1	5
Bacteriology A and Bacteriology 32	5
Sanitation A	4
Nutrition A	3
Health Education Methods A	$\frac{1}{2}$
Control of Cancer	$\frac{1}{2}$
Control of Tuberculosis	$\frac{1}{2}$
Technique of Medical Writing	$\frac{1}{2}$
Industrial Hygiene B (Laboratory)	3

*Second Semester*

	Credit Units
Public Health Practice A	4
Communicable Diseases A	3
Ecology A	3
Industrial Hygiene A	4
Epidemiology A	5
Vital Statistics A2	4
Parasitology and Tropical Medicine A	4
Public Speaking and Radio Technique	3
Control of Malaria	$\frac{1}{2}$
Industrial Hygiene B (Laboratory)	2
Sanitation B (Laboratory)	2
Bacteriology 34 (Viruses)	1
Epidemiology B	2
Applied Immunology 33A	1
Field Training A	2
Child Health B	3
Clinical Instruction in Syphilis	2

*Thesis:* Each student who is a candidate for the Master of Public Health degree is required to prepare a thesis in his major field of interest, which shall be approximately six thousand words in length. The subject of the thesis is to be selected before the Christmas Recess, with the help of the head of the department in which the student's special field of interest lies, and the completed thesis is to be handed in before the Spring Recess.

*Final examination:* This is a comprehensive, coördinating examination designed to test the student's knowledge and judgment in the public health field, with special reference to administration, epidemiology, sanitation and statistics.

### Master or Doctor of Science in Engineering

Graduates of engineering colleges or scientific schools of recognized standing may be admitted to the Graduate School of Engineering as candidates for the Master or Doctor of Science degree conferred by the Faculty of Engineering. For such an individual the sanitary engineering or industrial hygiene aspects of public health would be the field of concentration.

For further information write The Secretary, Graduate School of Engineering, Pierce Hall, Cambridge, Mass.

## Doctor of Philosophy in Hygiene

Information relative to prerequisites, courses, fees, etc., may be secured from the Secretary, Division of Medical Sciences, Harvard Medical School, 25 Shattuck Street, Boston, Mass.

## CERTIFICATE IN PUBLIC HEALTH

*Prerequisites:* Candidates for the Certificate must be graduates in arts or in science from an approved college and present evidence of such training in the medical sciences as is ordinarily provided during the first two years of medical school curriculum. At the discretion of the Committee on Admissions, however, certain courses ordinarily required for admission may be waived, in view of special fitness or training in other fields.

*Residence:* At least one academic year must be spent in residence in this University.

*Programs of study:* The Certificate in Public Health is granted upon satisfactory completion of an approved program of courses and candidates for this Certificate are required to take the final general examination.

Students who are interested in, and properly qualified for, work in a particular field, such as Bacteriology, Vital Statistics, etc., may specialize in that field. Upon completion of honor work in this major subject such students may be granted a Certificate of Public Health in that subject. All such candidates must be approved by the head of the department in which the work is to be done. The final examination is not required of this group.

## SPECIAL STUDENTS

Those who do not meet the academic requirements for admission as candidates for degrees or the certificate, may be admitted to certain courses and programs of study at the discretion of the head of each department and subject to conditions specified by him with the approval of the Dean.

Students unable to spend a full academic year at the School may come for individual courses if their preparation for the course is approved by the head of the department.

As the capacity of the School is limited, the number of special students who can be admitted is dependent on the number of applicants with a medical degree who are accepted for the regular course. Therefore, it is not possible to know how many special students can be received until late in the summer.

## FEES AND EXPENSES

*The fees are:* For medical and infirmary fee, \$20 for each year; for instruction (including laboratory charges except breakage, damage, and loss of apparatus), \$400 for each year.

Tuition will be charged on term bills in four instalments, as follows:

One-fourth on the term bill issued at registration and payable on or before September 25th, 1940. Students who register late must pay their bills on or before the second business day following registration.

One-fourth on the term bill issued November 12th and payable November 30th.

One-fourth on the term bill issued January 13th, 1941, and payable January 30th.

One-fourth on the term bill issued April 12th and payable April 30th.

The term bills are sent to the student at his University address unless the Bursar is requested in writing to send them elsewhere.

Students desiring to take single courses may do so at the rate of \$65 for one full course, payable in advance.

The medical and infirmary fee is payable in two equal installments on the September and January term bills.

Dining hall charges for those who eat at the Medical School Dormitory will be added to the term bills.

Bills for miscellaneous charges will be rendered at the time the indebtedness is incurred.

All indebtedness to the University must be paid by candidates for degrees at least one day before Commencement.

Students who are candidates for degrees in the middle of the academic year must pay all dues to the University at least one day before the day upon which the degrees are to be voted.

A student who leaves during the year is charged to the end of the tuition period in which he leaves, provided before that time he gives the Dean notice in writing of his withdrawal; otherwise he is charged to the end of the academic year or to the end of the tuition period in which such notice is given.

When a student's connection with the University is severed, all charges against him must be paid at once.

Any student whose indebtedness to the University remains unpaid on the date fixed for payment is deprived of the privileges of the University until he is reinstated. Reinstatement is obtained only by consent of the Dean of the Department in which the student is enrolled, after payment of all indebtedness and a reinstatement fee of \$10. *Students will be held responsible for the payment of fees until they have notified the Dean, in writing, of their intentions to withdraw from the School.*

*Students owning microscopes are advised to bring them with them. The*

School has a limited number of microscopes which may be rented upon application to the Dean's Office, but offers no guarantee that it will keep on hand a sufficient number of such instruments to furnish one for each student.

## BONDS

Upon entrance to the School every student is required to file with the Bursar a bond in the sum of \$500 as security for payment of University bills. The bond must be signed by two bondsmen, both of whom must be citizens of the United States, or by a surety company duly qualified to do business in Massachusetts. No officer or student of the University will be accepted as a bondsman and in no case will more than one parent be accepted. In lieu of the bond a student may deposit with the Bursar five hundred dollars in United States government coupon bonds, or five hundred dollars in cash, which will bear no interest. Blank forms of bonds may be obtained at the Dean's Office or from the Bursar.

## STUDENT HEALTH SERVICE

Each full-time student will be charged annually a Medical and Infirmary fee of \$20. Part-time students working at the rate of substantially half-time or less and living at home may be exempted from this requirement upon recommendation of the Dean.

In return for payment of this fee the School provides a physician to students who will give medical advice and treatment without charge during the school year. He is available for consultation by students at his office in Building A, Harvard Medical School, from 8 to 9 o'clock, and from 3.30 to 5.30 o'clock daily except Saturdays and holidays. He may also be seen at other times by appointment and at any time in case of emergency. The fee also covers a total of two weeks ward care in one of the teaching hospitals of the Medical School if necessary or, in case of minor illness, to bed, board, and ordinary nursing care in the Stillman Infirmary for a period not exceeding two weeks in any one academic year. Medical attendance, private rooms, and special nursing care will be an extra charge. In addition, each student is entitled to all the medical and other services that have been organized under the Student Health Service plan of the University.

Any illness necessitating absence from work should be reported to the Student Health Office by the student, or by an attending physician.

Under the auspices of the Department of Medicine of the Harvard Medical School each student will be required to undergo a complete medical examination shortly after admission to the School. Evidence of having been satisfactorily vaccinated is required for entrance to Harvard University and a form of certification for this purpose is sent to each



student who is accepted for admission. For information regarding the Stillman Infirmary see the University Catalogue.

### LIBRARIES

The joint Library of the School of Public Health and the Harvard Medical School is on the second floor of the Administration Building of the Medical School. It is open in term time from 9 A.M. until 10 P.M. on week days, from 9 A.M. until 5 P.M. on Saturdays, and from 2 P.M. until 6 P.M. on Sundays. During the summer vacation it is open week days from 9 A.M. until 10 P.M. and on Saturdays from 9 A.M. until 12 M., but is closed on Sundays throughout the day. There are at present 69,345 volumes, 190,175 pamphlets, and 582 current periodicals on file in this library.

Students also have the privilege of using the College Library in Cambridge, as well as the various departmental libraries belonging to the University, in all of which there are 3,945,318 volumes and pamphlets.

The Boston Public Library is open to students who are residents of Boston, and students not residents of Boston who have filed a bond at the Bursar's Office.

The Boston Medical Library, No. 8 The Fenway, contains about 180,605 bound volumes, 119,005 pamphlets, and 739 current periodicals on file. For those who desire to consult medical literature, this very valuable library is open on week days from 9.30 A.M. to 6 P.M., and on Mondays, Wednesdays, and Fridays until 10 P.M.

### HARVARD INFANTILE PARALYSIS COMMISSION

The Commission was appointed by the Corporation September 25, 1916. Its activities include the treatment of patients with infantile paralysis and studies on the cause, prevention, and management of the disease. The Commission also acts in an advisory capacity to the Massachusetts State Department of Health and coöperates with the Vermont Board of Health. It is supported entirely by public subscription and receives no financial support from Harvard University.

The members of the Commission are: JOHN E. GORDON, M.D., *Chairman*, KENNETH D. BLACKFAN, M.D., C. SIDNEY BURWELL, M.D., CECIL K. DRINKER, M.D., FRANK R. OBER, M.D., ALTON S. POPE, M.D., GEORGE B. WISLOCKI, M.D., HANS ZINSSER, M.D.

The Advisory Committee is: ROGER PIERCE, *Chairman*, RICHARD C. CURTIS, *Treasurer*, FREDERICK AYER, HERMANN F. CLARKE, JAMES J. MINOT, JR., and Miss MADELEINE HARDING, *Secretary*.

Director of Clinics, William T. Green, M.D.

Director of Field and Laboratory Studies, W. Lloyd Aycock, M.D.

## ANNOUNCEMENT OF COURSES

## BACTERIOLOGY

HANS ZINSSER, A.M., M.D., S.D., *Charles Wilder Professor of Bacteriology and Immunology.*

J. HOWARD MUELLER, S.M., Ph.D., *Associate Professor of Bacteriology and Immunology.*

JOHN F. ENDERS, A.M., Ph.D., *Assistant Professor of Bacteriology and Immunology.*

LEROY D. FOTHERGILL, A.B., M.D., *Silas Arnold Houghton Assistant Professor of Bacteriology and Immunology.*

WILLIAM A. HINTON, S.B., M.D., *Instructor in Bacteriology and Immunology and Chief of Wassermann Laboratory.*

EMANUEL B. SCHOENBACH, S.B., M.D., *Instructor in Bacteriology.*

LEAH R. SEIDMAN, A.B., Sc.D., *Assistant in Bacteriology.*

The Department of Bacteriology and Immunology of the Harvard School of Public Health, in addition to a fundamental course in bacteriology, offers a course of lectures and demonstrations in immunity and specific therapy.

Opportunity for diagnostic serological work is offered in the Department in connection with the Wassermann Laboratory of the State of Massachusetts, and provision is made for individual work upon problems of serum production, standardization, etc., under Dr. Elliott Robinson of the Massachusetts Antitoxin and Vaccine Laboratory.

Advanced work and opportunities for investigation are available, admission to this type of work depending upon the fitness of the applicant.

## Bacteriology A

Lectures and laboratory work. *Mondays, Wednesdays, and Fridays, 2-5 P.M., first half-year.* Dr. FOTHERGILL and associates.

Credit 5 units.

This course deals with the bacteriology of the pathogenic microorganisms in its applications to diagnosis, investigation and prevention of communicable disease. While Public Health students follow the general plan of the medical course, they are segregated under the guidance of Dr. Fothergill and are given a training more adapted to the needs of public health bacteriologists.

The bacteriology of milk, water, sewage and shell fish will be given special consideration. Throughout the course, special lectures will be given and periodic conferences will be held in order that emphasis can be given to certain phases of the subject and to allow students an opportunity for the discussion of difficulties. Clinics will be held at the Children's Hospital at which patients having infections with the organisms being studied at the moment will be demonstrated.

### Bacteriology 32

Lectures. *Tuesdays, 2-3 P.M., and Thursdays, 2.30-3.30 P.M., November 5 through January 16.* Dr. ZINSSER.

Credit for this course is included as a part of Bacteriology A.

**Immunity.** — This course is a series of lectures on the principles and theories of immunity, together with a number of practical demonstrations. It should prepare students for their later work at the Antitoxin Laboratory under Dr. Robinson. The latter half of this course is devoted to lectures on the special immunology of specific diseases. Special emphasis is given to the specific prophylaxis and treatment of such diseases.

### Applied Immunology 33a

Lectures and laboratory work. *Mondays, Wednesdays, and Fridays, 2-5 P.M., at State Antitoxin Laboratory, during Eighth month.* Dr. ROBINSON. For details see page 21.

### Bacteriology 31

*Arrangements as to hours will be made to suit the needs of individual students.* Dr. HINTON.

**Diagnostic Serum Reactions.** — A short course which deals chiefly with the details of methods of serological syphilis diagnosis, but includes other phases of practical diagnostic public health laboratory work and the organization of laboratories for such purposes.

Since the above series of courses constitutes a complete unit of bacteriological public health laboratory work, it is proposed for students who take the entire group of courses to treat them as a single course in regard to examination.

This curriculum of bacteriological courses taken in conjunction with epidemiology, vital statistics, sanitation and medical zoölogy, represents a thorough training in that branch of public health which deals with the communicable diseases.



### Bacteriology 34

Viruses. *Tuesdays, 2-5 P.M. and Thursdays, 2.30-5 P.M., February 4 to 27.* Dr. ENDERS.

Credit 1 unit.

" This course will consist of eight exercises in which an opportunity will be offered to acquire the fundamental technique employed in the study of virus agents pathogenic for man and the lower animals. In addition there will be presented reviews of the recent, significant contributions to knowledge of these agents.

Unless a minimum of five applications shall be received by November 1, 1940, the course will not be given. Enrollment for the laboratory exercises will be limited to fifteen.

### Research in Bacteriology

Special advanced courses will be offered in Immunology and the Technique of Serum Study, and will be open to a limited number of students.

Opportunity will be given for properly qualified students to pursue research work along varied lines.

### APPLIED IMMUNOLOGY — SERUMS AND VACCINES

ELLIOTT S. A. ROBINSON, M.D., Ph.D., *Assistant Professor of Applied Immunology and Director of the Division of Biologic Laboratories, State Department of Public Health.*

ARTHUR P. LONG, M.D., Dr. P.H., *Instructor in Applied Immunology and Assistant Director of the Division of Biologic Laboratories, State Department of Public Health.*

GEOFFREY EDSALL, M.D., *Instructor in Applied Immunology and Assistant Director of the Division of Biologic Laboratories, State Department of Public Health.*

FLOYD D. HAGER, S.M., Ph.D., *Instructor in Applied Immunology.*

LEO RANE, Ph.D., *Assistant in Applied Immunology.*

LA VERNE A. BARNES, S.M., Ph.D., *Assistant in Applied Immunology.*

### Applied Immunology 33a

Lectures and laboratory work. *Mondays, Wednesdays, and Fridays, 2-5 P.M., at State Antitoxin Laboratory, during Eighth month.* Dr. ROBINSON.

Credit 1 unit.

In this course the application of immunological theory to the prevention and treatment of disease, as evidenced in the manufacture of serums, vaccines, and related products, is developed by lectures, discussions, and laboratory demonstrations. The content of the course is dependent upon the training and interests of the students.

Facilities are also offered for study of and training in the manufacture of biologic products or for original work in problems related to these processes, at times to be arranged individually.

## COMPARATIVE PATHOLOGY AND TROPICAL MEDICINE

ERNEST E. TYZZER, Ph.B., A.M., M.D., S.D., *George Fabyan Professor of Comparative Pathology and Professor of Tropical Medicine.*

A. WATSON SELLARDS, A.M., M.D., *Richard Pearson Strong Associate Professor of Tropical Medicine.*

GEORGE C. SHATTUCK, M.D., A.M., *Clinical Professor of Tropical Medicine.*

JOSEPH C. BEQUAERT, Ph.D., *Assistant Professor of Comparative Pathology and Tropical Medicine.*

DONALD L. AUGUSTINE, S.D., *Assistant Professor of Comparative Pathology and Tropical Medicine.*

QUENTIN M. GEIMAN, S.M., Ph.D., *Instructor in Comparative Pathology and Tropical Medicine.*

DAVID WEINMAN, M.D., *Instructor in Comparative Pathology and Tropical Medicine.*

ALBERT A. HORNOR, A.B., M.D., *Assistant in Tropical Medicine.*

ALEXANDER H. RICE, A.M., M.D., *Lecturer on Diseases of South America.*

BYRON L. BENNETT, *Research Assistant.*

## Parasitology and Tropical Medicine A

Lectures and laboratory work. *Tuesdays, 2-5 P.M. and Thursdays, 2.30-5 P.M., Fifth, Sixth and Seventh months.* Dr. TYZZER and associates.

Credit 4 units.

The course consists of lectures, laboratory exercises and demonstrations dealing with helminths, protozoa and arthropods of importance to public health, with the object of training the student in the identification of the more important parasites, and study of their life histories with reference to prevention and control. The agency of insects and other

arthropods in the transmission of disease will receive special consideration.

Students with special backgrounds and interests are encouraged to undertake special or advanced work along with, or in lieu of, the regular course. Investigations of members of the Department have provided material, including cultures and other living material, in a number of fields. Among the subjects available for special work are: trichinosis, with special reference to skin and precipitin tests; hookworms; ascariasis; amebiasis, methods of diagnosis and cultivation; trypanosomiasis; leishmaniasis; rearing and dissection of various insects such as mosquitoes, bedbugs, fleas, *Phlebotomus* sandflies, et cetera; identification of *Anopheles* mosquitoes; insect rickettsiae.

### Advanced Work in Medical Zoölogy and Tropical Medicine

Advanced courses and research in Protozoölogy, Helminthology, and Medical Entomology may be arranged for qualified students.

Special work on problems relating to tropical or exotic diseases may be arranged for qualified students and opportunities are at times afforded for investigators engaged on special problems to work in laboratories or hospitals situated within the tropics.

### COMMUNICABLE DISEASES

CONRAD WESSELHOEFT, M.D., *Clinical Professor of Communicable Diseases.*

R. CANNON ELEY, M.D., *Associate in Pediatrics and Communicable Diseases.*

EDWARD C. SMITH, A.B., M.D., *Instructor in Communicable Diseases.*

CHARLES F. WALCOTT, A.B., M.D., *Assistant in Communicable Diseases.*

Teaching in Communicable Diseases is given in the Haynes Memorial Hospital for Contagious Diseases and in the Isolation wards of the Children's Hospital.

#### Communicable Diseases A

Lectures. *Mondays and Fridays, 9-10 A.M., Sixth, Seventh and Eighth months.* Clinics. *Fridays, 3-5 P.M., Sixth, Seventh and Eighth months.* Dr. WESSELHOEFT, Dr. ELEY, and associates.

Credit 3 units.

This course consists of lectures, demonstrations, clinics, and conferences on the care and management of patients with communicable diseases, with special consideration of problems which are solved jointly by the public health official and the practicing physician.

### Research in Communicable Diseases

Opportunity is offered to qualified students to pursue research work in communicable disease problems in the Department of Communicable Diseases or in conjunction with the Department of Bacteriology and Immunology.

#### EPIDEMIOLOGY

JOHN E. GORDON, Ph.D., M.D., *Professor of Preventive Medicine and Epidemiology.*

W. LLOYD AYCOCK, M.D., *Assistant Professor of Preventive Medicine and Hygiene.*

WILLIAM McD. HAMMON, A.B., M.D., Dr. P.H., *Instructor in Epidemiology.*

STAFFORD M. WHEELER, A.B., M.D., *Instructor in Preventive Medicine and Epidemiology.*

VLADO A. GETTING, A.B., M.D., Dr. P.H., *Assistant in Preventive Medicine and Epidemiology.*

JAMES W. HAWKINS, S.M., M.D., M.P.H. *Assistant in Epidemiology.*

JOHN R. MOTE, A.B., M.D., *Assistant in Preventive Medicine and Epidemiology.*

KIRK T. MOSLEY, A.B., M.D., M.P.H., *Assistant in Epidemiology.*

NELS A. NELSON, S.B., M.D., *Lecturer on the Control of Genitoinfectious Diseases.*

JOHN E. DUNN, A.B., M.D., M.P.H., *Research Fellow in Preventive Medicine and Epidemiology.*

ALBERT J. SHELDON, A.M., Sc.D., *Charles Follen Folsom Fellow in Preventive Medicine.*

#### Epidemiology A

Lectures and laboratory work. *Mondays and Tuesdays, 10-11 A.M.; Wednesdays and Fridays, 10 A.M.-12.30 P.M., second half-year; also Fridays, 9-10 A.M. during Fifth month.* Dr. GORDON and associates.

Credit 5 units.

A laboratory, lecture and seminar course designed to give the principles, historic development and methods of epidemiology of the communicable diseases with their application to public health. The laboratory work illustrates field experience and field methods in the collection, analysis and interpretation of data on epidemic and endemic disease.

### Epidemiology B

Advanced Epidemiology. *Thursdays, 9-11 A.M., Fifth, Sixth and Seventh months; Tuesdays, 2-5 P.M. and Thursdays, 9 A.M.-5 P.M. in the Eighth month.* Drs. GORDON and AYCOCK.

Credit 2 units.

A conference, field and laboratory course based on studies of current outbreaks of communicable disease. Emphasis is given to investigative procedures and the evaluation of methods of control. Available to students with acceptable preparation.

### Epidemiology C

Properly qualified workers may be assigned problems in connection with the general program of field and laboratory investigation being pursued in the department, or may be aided in the development of their own problems. Dr. GORDON and Dr. AYCOCK.

### PUBLIC HEALTH PRACTICE

EDWARD G. HUBER, A.B., M.D., Dr. P.H., *Assistant Professor of Public Health Practice and Assistant Dean.*

HAROLD D. CHOPE, A.B., M.D., Dr. P.H., *Instructor in Public Health Practice and Director of Public Health, City of Newton, Massachusetts.*

HENRY D. CHADWICK M.D., *Lecturer on Public Health Practice and Medical Director, Middlesex County Sanatorium.*

ALTON S. POPE, A.B., M.D., Dr. P.H., *Lecturer on Public Health Practice and Deputy Commissioner, Department of Public Health of Massachusetts.*

CHARLES F. WILINSKY, M.D., *Lecturer on Public Health Practice and Deputy Commissioner in charge of Child Hygiene and Health Units, City of Boston Health Department.*

HENRY F. R. WATTS, M.D., *Lecturer on Public Health Practice and Health Commissioner, City of Boston Health Department.*

ROY F. FEEMSTER, A.B., M.D., Dr. P.H., *Lecturer on Public Health Practice and Director of the Division of Communicable Diseases, Department of Public Health of Massachusetts.*

HERBERT L. LOMBARD, A.B., M.D., M.P.H., *Lecturer on Public Health Practice and Director, Division of Adult Hygiene, Department of Public Health of Massachusetts.*

JAMES A. TOBEY, LL.B., S.M., Dr. P.H., *Lecturer on Public Health Law.*

GEORGE KAHN, S.B., M.D., M.P.H., *Instructor in Public Health Practice.*

KATHERINE R. DRINKER, A.B., M.D., *Instructor in Public Health Practice.*

FREDERICK C. PACKARD, JR., A.B., *Associate Professor of Public Speaking.*

FRANCIS R. DIEUAIDE, A.B., M.D., *Associate Professor of Medicine.*

WILLIAM C. QUINBY, A.B., M.D., *Clinical Professor of Genito-Urinary Surgery.*

C. WALTER CLARKE, A.M., M.D., *Lecturer on Public Health Practice.*

### Public Health Practice A

Lectures and seminars. *Mondays, 11 A.M.-12 M., Wednesdays, 9-10 A.M., Saturdays, 10-11 A.M., second half-year.* Dr. HUBER and associates.

Credit 4 units.

The aim of this course is to develop the principles of public administration by a study of organization, coördination and control, and of personnel management, public health law, budgeting and leadership. With the increasing complexity of government, the health commissioner devotes more and more of his time to administration in general, as distinguished from administration which is concerned chiefly with public health. The health commissioner should, therefore, understand his relationship to other departments, divisions and bureaus of federal, state and municipal governments; these subjects receive full consideration in the lectures. In order to develop the specific duties of the administrator of a health department, studies will be made of typical problems which present themselves and of the best solutions to these problems. The purpose of this case history method of presentation is to demonstrate the application of the principles of public health to its practice.

During the year 1939-40 special lectures were given by the following:

Edward S. Godfrey, Jr., M.D.

V. A. Van Volkenburgh, M.D.

Ernest L. Stebbins, M.D.

Martha M. Eliot, M.D.

Halbert L. Dunn, M.D.

C. C. Pierce, M.D.

Frederick F. Russell, M.D.

Mr. Ralph E. Houghton

Miss Grace Lawrence, R.N.

Mr. Wesley Fuller

Arthur R. Turner, M.D.

Walter Clarke, M.D.

### Field Training A

Field studies and demonstrations. *Thursdays, 9 A.M.-12 M., Fifth, Sixth and Seventh months, Tuesdays, 2-5 P.M. and Thursdays, 9 A.M.-5 P.M. in the Eighth month.* Other hours can be arranged to meet individual schedules.

Credit 2 units, or according to amount of work done.

These exercises illustrate the practical application of the principles of public health. The demonstrations are given by the Department of Public Health Practice with the active coöperation of the Massachusetts



Department of Public Health, the Health Department of the City of Newton, the City of Boston Health Department, the Connecticut Department of Health and other official and unofficial health agencies.

A wide variety of special fields in public health administration is available for observation and study by the students, including special activities in large and small city health departments, rural boards of health, departments of school medical inspection, public health nursing, communicable disease control, health units, clinics for the control of tuberculosis and venereal disease, health examinations, contagious disease hospitals, etc.

### **Research in Public Health Practice**

Advanced students are offered the opportunity to undertake special studies in Public Health Practice. The student must have completed Public Health Practice A, Epidemiology A, and Vital Statistics A before registering for this work.

### **Health Education Methods A**

*Thursdays 9-10 A.M., Third and Fourth months.*

Credit  $\frac{1}{2}$  unit.

The aim of this course is to teach the student the technique of writing newspaper articles, the principles involved in the preparation of health exhibits, of health education in the schools, and of educational material in general.

### **Education of the Public in Health A**

For public health workers, such as nurses and others interested in the field of health education, courses will be arranged after personal conference. Such candidates must be college graduates. For them, one or two years of special work will be arranged.

It is essential for the person going into the field of health education first to have a basic knowledge of anatomy, physiology, and the fundamental medical sciences. He must also know what public health is, what its aims are and what administrative measures are used. Equally essential is a knowledge of educational technique. To give the prospective health educator training in these subjects the Harvard School of Public Health and the Graduate School of Education offer a combined one- or two-year course to college graduates, each student to be assigned to work after an individual conference to determine his particular needs and taking into consideration his training and experience. Credit for previous training in public health and educational methods, or for experience therein, may be granted.

Such a student, after a conference to determine his individual requirements, would elect subjects from the following group.

*Harvard School of Public Health*

Public Health Practice A  
 Health Education Methods A  
 Public Speaking and Radio Technique  
 Technique of Medical Writing  
 Bacteriology A  
 Sanitation A  
 Nutrition A  
 Epidemiology A  
 Parasitology and Tropical Medicine A  
 Communicable Diseases A  
 Administrative Control of Syphilis and Gonorrhea  
 Control of Tuberculosis, Cancer and Malaria

*Harvard Medical School*

Anatomy  
 Physiology

*Graduate School of Education*

Educational Psychology 1 or 1r  
 Educational Measurement 1 or 1r  
 Principles of Teaching 5 or 5r  
 Philosophy of Education 1 or 1r  
 Elementary Education 1  
 Secondary Education 1 or 1r  
 Educational Administration 1 and/or 2

*Faculty of Arts and Sciences and Radcliffe College*

Comparative Anatomy and Evolution of Vertebrates  
 Principles of Physiology

**Public Speaking and Radio Technique**

*Mondays and Wednesdays, 2-4 P.M., Fifth, Sixth and Seventh months.*

Professor PACKARD and associates.

Credit 3 units.

This course is designed to provide intensive practice in the clear and effective communication of public health subjects to audiences.

Those elements of composition which are especially important in spoken presentation are stressed; such as clarity of structure, the use of good illustrations and of direct non-scientific vocabulary, and the adaptation of the subject matter to different types of audience.

Attention is given to training the voice for effective delivery, both from the public platform and before the microphone.



Prepared speeches of different types, and varying in length from three to thirty minutes, constitute the major application of principles. Several outside speaking engagements, including at least one broadcast, furnish further opportunity for guided practice.

### Technique of Medical Writing

*Saturdays, 11 A.M.-12 M., Third and Fourth months.* Dr. KATHERINE R. DRINKER.

Credit  $\frac{1}{2}$  unit.

A series of lectures covers such subjects as using a medical library; preparing a working bibliography; making an outline; writing and revising a paper — including a discussion of paragraph and sentence structure and of common errors of grammar and style; preparing tables and illustrations; citing references; proofreading, etc. The thesis required in the major field of interest provides each student with a practical exercise in medical writing. This exercise is supplemented by personal conferences in which each thesis — in outline and in finished form — is discussed with its author from the points of view of plan and of construction.

### Control of Syphilis and Gonorrhea

#### LECTURES

*Syphilis. Mondays, 11 A.M.-12 M. and Saturdays, 10-11 A.M., First and Second months.* Dr. DIEUAIDE and associates.

*Gonorrhea. Mondays, 11 A.M.-12 M. and Saturdays, 10-11 A.M., Third month.* Dr. QUINBY and associates.

*Administrative Control of Syphilis and Gonorrhea. Mondays, 11 A.M.-12 M. and Saturdays, 10-11 A.M., Fourth month.* Dr. CLARKE.

Credit 3 units for the semester's work.

#### CLINICS

*Clinical instruction in Syphilis at the Massachusetts General Hospital. Mondays through Fridays, 2-5 P.M., during Eighth month. Limited to twelve students.* Dr. DIEUAIDE.

Credit 2 units.

Special clinical instruction in syphilis is available at the Massachusetts General Hospital for those who are planning to do public health work in this field. Three afternoons each week for at least three months may be arranged individually for each student. This includes epidemiologic and control work in the field. Bacteriology 31, or similar work, should be included during the year. Dr. DIEUAIDE.

Credit units according to amount of work done.

Special clinical instruction in gonorrhea is available at the Peter Bent Brigham Hospital, at hours to be arranged for individual students according to particular needs. The various phases of the diagnosis and treatment of gonorrhea will be demonstrated. Dr. QUINBY and associates.

Credit units according to amount of work done.

Students desiring to specialize in the control of syphilis and gonorrhea may elect part, or all, of the work offered in this field. The didactic, clinical lectures and the lectures on administrative control are given by specialists in their respective fields.

During the year 1939-40 clinical lectures in this course were given by the following:

Francis R. Dieuaide, M.D.  
C. Guy Lane, M.D.  
Austin W. Cheever, M.D.  
William C. Quinby, M.D.

Paul A. Younge, M.D.  
Charles A. Janeway, M.D.  
John G. Gibson, 3rd, M.D.  
Walter Bauer, M.D.

### Control of Tuberculosis, Cancer and Malaria

Tuberculosis. *Tuesdays, 2-3 P.M., October 8, 15, 22, 29 and Thursdays, 2.30-3.30 P.M., October 10, 17, 24, 31.*

Cancer. *Saturdays, 11 A.M.-12 M., First and Second months.*

Malaria. *Mondays 9-10 A.M., and Fridays, 4-5 P.M., Fifth month.*

Credit  $\frac{1}{2}$  unit for each course.

Short courses, of eight exercises each, are offered in these three respective fields. The aim in each course is to describe the special control measures which are applicable. The subjects are viewed from the standpoint of the administrator rather than from that of the epidemiologist, or of the specialist, although specialists in the respective fields will give the courses.

### CHILD HYGIENE

KENNETH D. BLACKFAN, M.D., *Thomas Morgan Rotch Professor of Pediatrics.*

RICHARD M. SMITH, A.B., M.D., S.D., *Clinical Professor of Pediatrics and Child Hygiene.*

HAROLD C. STUART, LITT.B., M.D., *Assistant Professor of Pediatrics and Child Hygiene.*

WILLIAM T. GREEN, A.M., M.D., *Assistant Professor of Orthopaedic Surgery.*

LOUIS K. DIAMOND, A.B., M.D., *Associate in Pediatrics.*

M. LUISE DIEZ, M.D., *Instructor in Child Hygiene.*

STEWART H. CLIFFORD, M.D., *Instructor in Pediatrics and Child Hygiene.*

ABRAHAM S. SMALL, M.D., *Instructor in Child Hygiene.*

EDWARD L. TUOHY, S.B., M.D., *Instructor in Child Hygiene.*

BERTHA S. BURKE, A.M., *Instructor in Nutrition.*

ARTHUR B. LYON, A.B., M.D., *Instructor in Pediatrics.*

SAMUEL B. KIRKWOOD, A.B., M.D., *Instructor in Obstetrics and in Maternal Health.*

NATHAN GORIN, M.D., *Assistant in Child Hygiene.*

### Child Health A

Lectures. *Mondays, Wednesdays, and Fridays, 9-10 A.M., first half-year.* Dr. SMITH, Dr. STUART and associates.

Credit 4 units.

This course presents in broad outline various subjects which have an important relation to child health. They are grouped under the following general divisions.

#### 1. — Maternal Hygiene and Obstetrical Care

Lectures dealing with those aspects of maternal care which are of concern to the health officer and which require attention for the protection of the fetus as well as the mother.

#### 2. — Growth and Development

The lectures on Growth and Development consider not only normal occurrences, but the requirements for satisfactory progress, and the problems of health appraisal in childhood. An attempt is made in this division to cover the scientific foundations upon which activities in the field of child health should be constructed.

#### 3. — Morbidity and Mortality

Lectures on Morbidity and Mortality focus attention upon the chief conditions requiring preventive effort and the prevalence of various risks and handicaps.

#### 4. — Child Hygiene

These lectures deal with the methods and channels of applied child health activities, both public and private. The care and protection of the neonate, the infant, the pre-school child and the school child are taken up successively in lectures and discussion periods.

During the year 1939-40 special lectures and instructions were given by the following:

Florence B. Hopkins, D.M.D., M.D.	John G. Kuhns, M.D.
Foster S. Kellogg, M.D.	Paul A. Chandler, M.D.
C. Stanley Raymond, M.D.	Douglas A. Thom, M.D.
T. Duckett Jones, M.D.	Mr. Cheney Jones
Austin W. Cheever, M.D.	Elizabeth E. Lord, Ph.D.
Harold D. Chope, M.D., Dr. P.H.	

#### Child Health B

Clinical and field work. *Mondays, 2-5 P.M. and Thursdays, 9 A.M.-12 M., during second half-year; also Thursdays, 2-5 P.M. during Eighth month.*

Credit 3 units.

The aim of this course is to give practical instruction in the conduct of various health activities. The schedule of activities will be arranged as far as possible to meet the particular needs of each student.

Through field exercises an additional opportunity is offered to study at first hand the work of the Division of Child Hygiene of the State Department of Public Health, the Infant and Pre-School Child Welfare Conferences of the Boston City Health Department, and the health program in the schools of the City of Newton. The care and protection of handicapped children is also demonstrated on visits to such institutions as the Florence Crittenton Home, the New England Home for Little Wanderers, and the Wrentham State School.

#### PHYSIOLOGY

CECIL K. DRINKER, S.B., M.D., S.D., *Dean and Professor of Physiology.*

LOUIS A. SHAW, A.B., *Assistant Professor of Physiology.*

MADELEINE F. WARREN, A.M., Ph.D., *Associate in Physiology.*

FRANK W. MAURER, Ph.D., *Associate in Physiology.*

J. WILLIAM HEIM, Ph.D., *Lecturer on Physiology.*

HENRY WARREN, *Assistant in Physiology.*

JANE D. MCCARRELL, A.M., Ph.D., *Assistant in Physiology.*

### Ecology A

Lectures. *Tuesdays and Saturdays, 9-10 A.M., second half-year.*  
Dr. DRINKER and associates.

Credit 3 units.

Ecology is that branch of biological science which deals with the relations of living organisms to their surroundings.

It is the effort of sanitary engineering to provide living and working conditions safe and tolerable for man all over the world and under many different circumstances. The human organism reacts characteristically to many changes in physical environment, to chemical changes in the atmosphere, and to alterations in food supply. In every instance large groups of people are involved and a reasonable knowledge of the principles of public health thus requires realization of the effects of the commoner environmental conditions met by man. These are heat, cold, humidity, dryness, alterations in barometric pressure, light, contamination of the atmosphere by smoke, dusts and chemicals, and changes in diet.

The course will consist of lectures, conferences and demonstrations covering the reaction caused by the varieties of human experience.

### Research in Physiology

Properly qualified students will be given opportunities to work in the laboratory provided they can spend at least six months of undivided time.

### BIOLOGICAL CHEMISTRY

A. BAIRD HASTINGS, Ph.D., *Hamilton Kuhn Professor of Biological Chemistry.*

OTTO A. BESSEY, Ph.D., *Associate in Biological Chemistry in charge of Nutrition.*

BERTHA S. BURKE, A.M., *Instructor in Nutrition.*

### Nutrition

Lectures. *Tuesdays and Saturdays, 9-10 A.M., first half-year.* Dr. BESSEY and Mrs. BURKE.

Credit 3 units.

The course deals with the fundamentals of the chemistry and physiology of nutrition and the practical application of these principles to the problems of human nutrition, especially in the field of public health.

Energy, protein, mineral, and vitamin metabolism, methods for establishing the minimum and optimum nutritional requirements, and the problems of meeting these requirements, especially for low income groups, are discussed. Attention is given to dietary requirements in relation to growth, development, pregnancy, lactation, and teeth. Methods of taking nutritional histories and the use of physical and chemical methods for evaluating the nutritional state of individuals or large groups are presented. The consequences of nutritional deficiencies and the relation of optimum nutrition to national health and economy are considered. The relation of methods of production, distribution, and preparation to the best use of food is considered.

In addition to the lectures, conferences with small groups on topics of special nutritional interest will be arranged.

## PUBLIC HEALTH ENGINEERING

### Industrial Hygiene and Sanitary Engineering

PHILIP DRINKER, S.B., Ch.E., *Professor of Industrial Hygiene.*

GORDON M. FAIR, S.M., *Abbot and James Lawrence Professor of Engineering and Gordon McKay Professor of Sanitary Engineering.*

CONSTANTIN P. YAGLOU, A.B., S.B., M.M.E., *Associate Professor of Industrial Hygiene.*

W. IRVING CLARK, A.B., M.D., F.A.C.S., *Clinical Professor of the Practice of Industrial Medicine.*

MELVILLE C. WHIPPLE, *Associate Professor of Sanitary Chemistry.*

EDWARD W. MOORE, A.M., *Assistant Professor of Sanitary Chemistry.*

CHARLES E. RENN, S.B., Ph.D., *Instructor in Sanitary Biology.*

REUBEN Z. SCHULZ, A.M., M.D., *Instructor in Pathology.*

CHARLES R. WILLIAMS, Ph.D., *Instructor in Industrial Hygiene.*

HAROLD A. THOMAS, JR., S.D., *Instructor in Sanitary Engineering.*

LESLIE SILVERMAN, S.M., *Instructor in Industrial Hygiene.*

THOMAS L. SHIPMAN, Ph.B., M.D., *Instructor in the Practice of Industrial Medicine.*

RALPH W. MCKEE, A.B., S.M., Ph.D., *Instructor in Industrial Hygiene.*

ERICH LINDEMANN, Ph.D., M.D., *Instructor in Psychiatry.*

HERVEY B. ELKINS, Ph.D., *Instructor in Industrial Hygiene.*

MANFRED BOWDITCH, A.B., *Lecturer on Industrial Hygiene.*



C. GUY LANE, A.B., M.D., *Lecturer on Industrial Hygiene.*

EMMA S. TOUSANT, LL.B., *Lecturer on Workman's Compensation*

HENRY C. MARBLE, A.B., M.D., *Assistant in Industrial Hygiene.*

JACK E. MCKEE, S.M., *Assistant in Sanitary Engineering.*

CHARLES I. MANSUR, S.B. in C.E., *Assistant in Sanitary Engineering.*

### **Industrial Hygiene A**

Lectures and demonstrations. *Mondays, Wednesdays, and Fridays, 2-4 P.M., Fifth, Sixth and Seventh months.* Field trips, *2-5 P.M., on eight days, dates to be announced, and all day Thursdays during Eighth month.* Professor DRINKER and associates.

Credit 4 units.

A course of lectures, demonstrations, clinics, and inspections showing the relation of working conditions to health, with special reference to the cause, prevention and treatment of industrial disabilities.

### **Industrial Hygiene B (Laboratory)**

Laboratory work. *Tuesdays, 2-5 P.M. and Thursdays, 2.30-5 P.M. First month through Seventh month.* Professor DRINKER and associates.

Credit 5 units.

Laboratory exercises in measuring airflow, in appraising air conditioning and ventilating installations, in determining and identifying atmospheric impurities, and in making toxicological analysis of importance in industrial medical problems.

### **Heating and Ventilating (Engineering 140a)**

Lectures. *Monday, Wednesday, and Friday, 9-10 A.M., first half-year, at Pierce Hall, Cambridge.* Professor C. H. BERRY and Mr. F. R. ELLIS.

The theory and practice of heating and ventilating. For engineers.

### **Air Conditioning (Engineering 140b)**

Lectures. *Monday, Wednesday, and Friday, 9-10 A.M., second half-year, at Pierce Hall, Cambridge.* Assoc. Professor YAGLOU and associates.

The theory and practice of air conditioning. For engineers.

### **Research in Industrial Hygiene, Heating and Ventilating, and Air Conditioning**

A limited number of qualified students will be given an opportunity to do research work in these general fields.

### The Principles of Sanitation A

Lectures and demonstrations. *Tuesdays, 10 A.M.-12 M., first half-year; Thursdays, 9 A.M.-12 M., First and Second months, 10 A.M.-12 M., Third and Fourth months.* Professor FAIR and associates.

Credit 4 units.

A course of lectures, demonstrations and inspections arranged especially for students in the School of Public Health. The following topics will be studied: (a) Water Supply — collection, purification and distribution; (b) Sewerage — collection, treatment and disposal; (c) Analysis of Water and Sewage — physical, chemical and biological; (d) Housing, City Planning and Zoning; (e) Rural Sanitation; (f) Biological Control — insects and rodents; (g) Food Sanitation — production, preservation, distribution and preparation; (h) Milk Sanitation; (i) Shellfish Sanitation; (j) Garbage and Refuse — collection and disposal; (k) Sanitation of Schools, Camps and Bathing Places.

### Sanitation B (Laboratory)

Laboratory and field work. *Tuesdays, 2-5 P.M. and Thursdays, 2.30-5 P.M., Fifth, Sixth and Seventh months.* Professor FAIR and Dr. THOMAS.

Credit 2 units.

Examination of water and water supplies, milk and milk supplies, swimming pools, drainage systems, and food handling establishments. Experimental water purification and sewage treatment. Interpretation of engineering drawings of sanitary works.

The following courses of instruction offered in the Graduate School of Engineering are open to properly qualified students:

Engineering 400a. Water Supply and Sewerage. Professor FAIR.

Engineering 400b. Water Purification and Sewage Treatment Works. Professor FAIR.

Engineering 410a and 410b. Sanitary Analysis of Water and Sewage. Asst. Professor WHIPPLE.

Engineering 411a. Sanitary Bacteriology. Asst. Professor WHIPPLE.

Engineering 411b. Sanitary Bacteriology. Dr. RENN.

Engineering 412a and 412b. Theoretical Principles of Sanitary Chemistry. Asst. Professor MOORE.

Engineering 413a and 413b. Sanitary Biology. Dr. RENN.

Engineering 430b. Theory of Water Purification and Sewage Treatment. Asst. Professor MOORE.



Engineering 431b. Field and Laboratory Work in Water Purification and Sewage Treatment. Asst. Professor WHIPPLE.

Engineering 432a. Industrial Wastes and Municipal Refuse. Asst. Professor MOORE.

## VITAL STATISTICS

EDWIN B. WILSON, Ph.D., *Professor of Vital Statistics.*

CARL R. DOERING, A.B., M.D., S.D., *Assistant Professor of Vital Statistics.*

JANE WORCESTER, A.B., *Instructor in Vital Statistics.*

### Vital Statistics A1

Lectures and laboratory work. *Mondays, 10-11 A.M., Wednesdays and Fridays, 10 A.M.-12 M., first half-year.* Dr. DOERING.

Credit 5 units.

This introduction to Vital Statistics will consist of lectures, recitations, and written work designed to familiarize the student with (1) the general facts already well established in demography, (2) the methods of graphical representation, (3) the calculation and use of averages and of measures of variation, and (4) the common types of rates, their adjustment and comparison.

*References:* M. J. ROSENAU, *Preventive Medicine*, Chap. XXX, by C. R. DOERING.

A. BRADFORD HILL, *Principles of Medical Statistics.*

### Vital Statistics A2

Lectures. *Tuesdays, Thursdays and Saturdays, 11 A.M.-12.30 P.M., Fifth month; Tuesdays and Saturdays, 11 A.M.-12.30 P.M., Sixth, Seventh and Eighth months.* Optional laboratory period. *Thursdays, 11 A.M.-12.30 P.M., during Sixth and Seventh months.* Professor WILSON.

Credit 4 units.

This course deals with the elements of the theory of statistical method with especial emphasis on those types of reasoning which are important for the proper planning and execution of field or laboratory investigations. It includes (1) the basic theory of probability, including errors of sampling, (2) association (Yule) and correlation, (3) arithmetic and geometric trends and, as time permits, various other topics such as life tables, rise and fall of epidemics, and the analysis of variation into component parts.

*Reference:* G. U. YULE, *Introduction to the Theory of Statistics.*

### **Vital Statistics B**

Professor WILSON or Dr. DOERING

Credit according to amount of work done.

A reading course, in either or both half-years, without specific assignment of hours, for students who have a satisfactory knowledge of elementary statistics and wish individual supervision in their study of more advanced parts of the subject.

### **Vital Statistics C**

Professor WILSON or Dr. DOERING

Credit according to amount of work done.

A research course, in either or both half-years, for students, whether specializing in Vital Statistics or in any other field of public health or the social disciplines, who desire to make statistical investigations of their own or to cooperate in the general statistical research of the Department.

### **The Physician and the Community**

Lectures and discussions. Dr. DOERING and others to be announced. (Omitted in 1940-41.)

Credit 1 unit.

After a few introductory lectures the course will consist of discussions of situations and conditions arising as a result of the social organization of the community. The health officer with a few years' experience has encountered problems based on the organization with which he is familiar. These problems are closely related to the health of the community and to the administration of a health program. In past years, students have requested discussions of social factors relating to the public health and this course is offered tentatively.

The discussion group will be limited to those who have had some experience in the public health field. Those who have not had such experience may attend the discussions as auditors. The selection of members of the class will be made by the Instructor after consultation with candidates.

## STUDENTS 1939-40

## CANDIDATES FOR THE DEGREE OF DOCTOR OF PUBLIC HEALTH

Chang, Shih L., M.D.	Changsha, China
Getting, Vlado A., A.B., M.D., M.P.H.	Jamaica Plain, Mass.
Paul, John H., PH.B., M.D.	New York, N. Y.
Yamarat, Charas, M.B., M.P.H.	Bangkok, Thailand

## CANDIDATES FOR THE DEGREE OF MASTER OF PUBLIC HEALTH

Aksara, Sombun P., M.B.	Bangkok, Thailand
Ascolillo, Hugo V., S.B., M.D.	West Somerville, Mass.
Askew, Julius B., M.D.	Batesville, Ark.
Bailey, Herald K., M.D.	Pikeville, Ky.
Beard, Rodney R., A.B., M.D.	San Francisco, Calif.
Brodersen, Harold N., S.B., M.D.	Los Angeles, Calif.
Brown, Frederick F., S.B., M.D.	Franklin, La.
Carter, Philip R., D.V.M.	Minneapolis, Minn.
Dalgleish, Rolland C., D.D.S.	Salt Lake City, Utah
Deatherage, Charles F., D.D.S.	Springfield, Ill.
Dix, Albert S., S.B., M.D.	Scottsboro, Ala.
Foker, Leslie W., S.B., M.B., M.D.	Minneapolis, Minn.
Frantz, J. Russell, A.B., M.D.	Glendale, Calif.
Gallison, Frank E., M.D.	Berkeley, Calif.
Hawkins, James W., S.B., S.M., M.D.	Coeur d'Alene, Idaho
Heacock, Lyman D., A.B., D.D.S.	San Francisco, Calif.
Heeren, Ralph H., S.B., S.M., PH.D., M.D.	Iowa City, Iowa
Hotopp, Marion, A.B., M.D.	New York, N.Y.
Jones, Margaret H., A.B., A.M., M.D.	Cheyenne, Wyo.
Jost, Theodore A., M.D.	Mount Vernon, N. Y.
Kahn, George, S.B., M.D.	Boston, Mass.
Kiper, Cemal A., M.D.	Ankara, Turkey
Lapidus, Philip, D.D.S.	Pittsburgh, Pa.
MacCoy, Ellarene L., A.B., M.D.	Fontana, Calif.
Magaña, Marco-Tulio, B.S.C., M.D.	San Salvador, El Salvador
Manzella, Anthony J., M.D.	Newburgh, N. Y.
Markwood, Chester R., S.B., M.D.	Glasgow, Ky.
Morse, Fred W., Jr., S.B., M.D.	Wellesley, Mass.
Mosley, Kirk T., A.B., M.D.	Texarkana, Ark.
Ocampo, Victor A., M.D.	Hermosillo, Mexico
Philbrook, Frank R., S.B., M.D.	Randolph, Mass.
Pinto, Sherman S., A.B., A.M., M.D.	Omaha, Nebr.
Plunkett, Richard J., M.D.	Watertown, Mass.
Roman, Guillermo, M.D.	Mexico City, Mexico

Rubenstein, Abraham D., A.B., M.D.	Boston, Mass.
Schafer, William L., Jr., M.D.	Alexandria, Va.
Shiga, Hidetoshi, M.D.	Tokyo, Japan
Souther, Susan P., A.B., M.D.	Hartford, Conn.
Steiner, Starling D., S.B., M.B., M.D.	Wellsburg, W. Va.
SubbaRao, Digavally, M.B., B.SC., B.S.SC.	Madras, India
Thurman, Allan C., A.B., M.D.	Salt Lake City, Utah
Viel, Benjamin V., A.B., M.D.	Santiago, Chile
Weigele, Carl E., M.D.	Teaneck, N. J.

## CANDIDATES FOR THE CERTIFICATE IN PUBLIC HEALTH

Dahlkey, Eugene G., S.B.	Pocatello, Idaho
Dunnigan, Arthur P., S.B., PH.D.	Minneapolis, Minn.

## SPECIAL STUDENTS

Bailey, Frederick J., M.D.	Dorchester, Mass.
Berrigan, Francis A.	Dorchester, Mass.
Berson, Hyman A., S.B., M.D.	Chelsea, Mass.
Bondurant, Charles H., M.D.	Front Royal, Va.
Butler, Alice E., M.D.	Wellesley, Mass.
Byrne, Edward F.	Boston, Mass.
Cahalan, Joseph A.	Dorchester, Mass.
Collins, Aubrey J., M.D.	Boston, Mass.
Cotty, William J.	Dorchester, Mass.
Davidow, Morris N., S.B., M.D.	Roxbury, Mass.
DeLeon, Mark L., A.B., M.D.	Mount Vernon, N. Y.
Dizon, Gregorio D., M.D., C.P.H.	Manila, Philippines
Donovan, Francis L.	Dorchester, Mass.
Donovan, Mary R.	Brighton, Mass.
Duff, Valentine S., S.B.	Hingham, Mass.
Dunn, John E., S.B., M.D., M.P.H.	Washington, D. C.
Fitz-Gerald, Frederick A.	Dorchester, Mass.
Gaudreau, Wilfred J., LL.B.	Dorchester, Mass.
Guilder, Ruth P., S.B., M.D.	Newtonville, Mass.
Hayek, John M., M.D.	Des Moines, Iowa
Heffernan, Grace M.	Dorchester, Mass.
Hopkins, Florence B., M.D., D.M.D.	Cohasset, Mass.
Koteen, Bernard A., S.B.	New York, N. Y.
Lal, Sardari K., M.B.B.S.	Calcutta, India
Linehan, John F.	Dorchester, Mass.
McGarry, Augustine W., A.B., M.D.	Boston, Mass.
Manley, Joseph J., M.D.	Cleveland, Ohio
Mintz, Anna, D.M.D.	Boston, Mass.

Muldowney, Patrick H., M.D.V.	Roslindale, Mass.
Murphy, Edward C.	Dorchester, Mass.
Murphy, James V.	Dorchester, Mass.
O'Donnell, George T., M.D.	Newton, Mass.
Ronan, Catherine F., D.M.D.	Salem, Mass.
Ryan, Joseph T.	Dorchester, Mass.
Scott, Charles N., M.D.	St. Albans, W. Va.
Seal, Srish C., M.B.	Calcutta, India
Siragusa, James J., M.D.	East Boston, Mass.
Small, Albert E., A.B., M.D.	Melrose, Mass.
Thomas, Ruth A., A.B., C.P.H.	Braintree, Mass.
Tillson, William D., M.D.	Parkersburg, W. Va.
Verde, Luigi P., B.A., M.D.	Dorchester, Mass.
Walker, Dilworth H., A.B.	Salt Lake City, Utah
Walsh, Henry P.	West Roxbury, Mass.
Wedgwood, Hazel	Boston, Mass.
Wright, John G., A.B., A.M.	Brookline, Mass.

### DEGREES

On June 22, 1939, Degrees and Certificates were conferred as follows:

#### DOCTOR OF PUBLIC HEALTH, *cum Laude*

William McDowell Hammon, A.B. (*Allegheny Coll.*) 1932, M.D. (*Harvard Univ.*) 1936, M.P.H. (*ibid.*) 1938.

*Thesis:* A Recently Defined Virus Disease: Malignant Panleucopenia of Cats.

*Special Field:* Bacteriology.

#### DOCTOR OF PUBLIC HEALTH

James Stevens Simmons, S.B. (*Davidson Coll.*) 1911, M.D. (*Univ. of Pennsylvania*) 1915, PH.D. (*George Washington Univ.*) 1934, SC.D. (*hon.*) (*Davidson Coll.*) 1937.

*Thesis:* Observations on the Vectors of Malaria in Panama with Experimental Studies of *A. punctimacula* and Other Recently Incriminated Anophelines.

*Special Field:* Parasitology.

#### MASTER OF PUBLIC HEALTH, *Magna cum Laude*

Vlado Andrew Getting, A.B. (*Johns Hopkins Univ.*) 1931, M.D. (*Harvard Univ.*) 1935.

MASTER OF PUBLIC HEALTH, *cum Laude*

- Michael Antell, M.D. (*Long Island Coll. of Medicine*) 1926.  
 Alfred Leo Frechette, M.D. (*Univ. of Vermont*) 1934.  
 James Franklin Hackney, M.D. (*Tulane Univ.*) 1931.  
 Robert Henry Riedel, S.B. (*Washington Univ.*) 1926, M.D. (*ibid.*) 1928.

## MASTER OF PUBLIC HEALTH

- Leo Bernstein, S.B. (*Tufts Coll.*) 1927, M.D. (*ibid.*) 1934.  
 Alfredo Norberto Bica, S.B. (*Aldridge Coll.*) 1927, M.D. (*Univ. of Brazil*) 1933.  
 Francis Brian Carroll, D.M.D. (*Tufts Coll.*) 1924, M.D. (*Univ. of Rochester*) 1935.  
 John Henry Cauley, M.D. (*Tufts Coll.*) 1916.  
 James Meredith Coleman, M.D. (*Baylor Univ.*) 1930.  
 Morris Coshak, S.B. (*Boston Univ.*) 1934, M.D. (*ibid.*) 1937.  
 Cecil Rhodes Fargher, A.B. (*Univ. of Oregon*) 1924, M.D. (*ibid.*) 1928.  
 Leroy Lee Fatherree, M.D. (*Univ. of Tennessee*) 1936.  
 Harry Goldman, M.D. (*Tufts Coll.*) 1918.  
 John James Goldsberry, S.B. (*Howard Univ.*) 1923, M.D. (*ibid.*) 1926.  
 Robert Caswell Hume, S.B. (*Yale Univ.*) 1930, M.D. (*Columbia Univ.*) 1934.  
 Wallace Daniel Hunt, M.D. (*Northwestern Univ.*) 1927.  
 Orlen Jules Johnson, A.B. (*Hillsdale Coll.*) 1927, M.D. (*Univ. of Michigan*) 1931.  
 Jesse Alstork Keene, S.B. (*Howard Univ.*) 1921, M.D. (*ibid.*) 1924.  
 James Richard Kingston, S.B. (*Univ. of Minnesota*) 1927, M.B. (*ibid.*) 1929, M.D. (*ibid.*) 1930.  
 Richard Alexander Koch, A.B. (*Stanford Univ.*) 1932, M.D. (*ibid.*) 1936.  
 Eugene Edward Lamoureux, S.B. (*Connecticut State Coll.*) 1930, M.D. (*Tufts Coll.*) 1935.  
 Hilbert Mark, S.B. (*Univ. of Minnesota*) 1927, M.B. (*ibid.*) 1929, M.D. (*ibid.*) 1930.  
 Alfred Roe Masten, A.B. (*Univ. of New Mexico*) 1921, M.D. (*Univ. of Colorado*) 1925.  
 William Eugene Mosher, Jr., A.B. (*Hamilton Coll.*) 1931, M.D. (*Syracuse Univ.*) 1936.



Abraham Israel Perley, A.B. (*Univ. of Alabama*) 1930, M.D. (*Univ. of Chicago*) 1934.

Jerome Sidney Peterson, S.B. (*Syracuse Univ.*) 1925, M.D. (*Columbia Univ.*) 1931.

Necker Pinto, S.B. (*Collegio Pedro II*) 1924, M.D. (*Univ. of Brazil*) 1930.

Edward Andrew Piszczek, S.B. (*Loyola Univ.*) 1931, M.D. (*ibid.*) 1933.

Emily L. Ripka, A.B. (*Univ. of Minnesota*) 1930, S.B. and M.B. (*ibid.*) 1933, M.D. (*ibid.*) 1934.

Frances Catherine Rothert, A.B. (*Indiana Univ.*) 1917, M.D. (*Columbia Univ.*) 1922.

Leonid Sergius Snegireff, M.D. (*Syracuse Univ.*) 1934.

Clair Ernest Troutman, S.B. (*Hobart Coll.*) 1928, M.D. (*Univ. of Rochester*) 1932.

Vernon Atwill Turner, S.B. and PH.G. (*Medical Coll. of Virginia*) 1926, M.D. (*Univ. of Virginia*) 1933.

Maurice Daniel Vest, S.B. (*Univ. of Nebraska*) 1929, M.D. (*ibid.*) 1931.

Israel Oscar Weissman, M.D. (*Long Island Coll. of Medicine*) 1932.

Harry Maceo Williams, M.D. (*Howard Univ.*) 1923.

#### CERTIFICATE OF PUBLIC HEALTH IN BACTERIOLOGY

Mary Jane Crum, A.B. (*Univ. of Kansas*) 1927.

Minnie Pearl Thigpen, S.B. (*Univ. of Chicago*) 1931.

#### CERTIFICATE OF PUBLIC HEALTH IN VITAL STATISTICS

William Donald Carroll, B.B.A. (*Univ. of Texas*) 1934.

On February 19, 1940, the following degrees were conferred:

#### DOCTOR OF PUBLIC HEALTH, *cum Laude*

Harold Delos Chope, A.B. (*Stanford Univ.*) 1926, M.D. (*ibid.*) 1931, M.P.H. (*Harvard Univ.*) 1933.

*Thesis:* An Investigation of Some Administrative and Statistical Problems in the Control of Measles.

*Special Field:* Vital Statistics.

Tomas Matro Gan, M.D. (*Univ. of the Philippines*) 1931, M.P.H. (*Johns Hopkins Univ.*) 1938.

*Thesis:* A Study of the Organization and Administration of the Boston City Health Department.

*Special Field:* Public Health Administration.

## TABULAR VIEW

FIRST MONTH (September 23–October 19)		SECOND MONTH (October 21–November 16)	
Monday	Child Health A 9–10 A.M. Vital Statistics A1 10–11 A.M. Syphilis 11 A.M.–12 M. Bacteriology A 2–5 P.M.	Child Health A 9–10 A.M. Vital Statistics A1 10–11 A.M. Syphilis 11 A.M.–12 M. Bacteriology A 2–5 P.M.	
Tuesday	Nutrition A 9–10 A.M. Sanitation A 10 A.M.–12 M. Control of Tuberculosis 2–3 P.M. (Oct. 8, 15) Industrial Hygiene B (Lab- oratory) 2–5 P.M.	Nutrition A 9–10 A.M. Sanitation A 10 A.M.–12 M. Control of Tuberculosis 2–3 P.M. (Oct. 22, 29) Bacteriology 32 (Immunity) 2–3 P.M. (Beginning Nov. 5) Industrial Hygiene B (Lab- oratory) 2–5 P.M.	
Wednesday	Child Health A 9–10 A.M. Vital Statistics A1 10 A.M.– 12 M. Bacteriology A 2–5 P.M.	Child Health A 9–10 A.M. Vital Statistics A1 10 A.M.– 12 M. Bacteriology A 2–5 P.M.	
Thursday	Sanitation A 9 A.M.–12 M. Control of Tuberculosis 2.30– 3.30 P.M. (Oct. 10, 17) Industrial Hygiene B (Lab- oratory) 2.30–5 P.M.	Sanitation A 9 A.M.–12 M. Control of Tuberculosis 2.30– 3.30 P.M. (Oct. 24, 31) Bacteriology 32 (Immunity) 2.30–3.30 P.M. (Beginning Nov. 7) Industrial Hygiene B (Lab- oratory) 2.30–5 P.M.	
Friday	Child Health A 9–10 A.M. Vital Statistics A1 10 A.M.– 12 M. Bacteriology A 2–5 P.M.	Child Health A 9–10 A.M. Vital Statistics A1 10 A.M.– 12 M. Bacteriology A 2–5 P.M.	
Saturday	Nutrition A 9–10 A.M. Syphilis 10–11 A.M. Control of Cancer 11 A.M.– 12 M.	Nutrition A 9–10 A.M. Syphilis 10–11 A.M. Control of Cancer 11 A.M.– 12 M.	

## TABULAR VIEW

THIRD MONTH  
(November 18–December 14)

FOURTH MONTH  
(December 16–January 25)  
Recess December 23–January 2  
Examination Week January  
20–25

Monday	Child Health A 9–10 A.M. Vital Statistics A1 10–11 A.M. Gonorrhea 11 A.M.–12 M. Bacteriology A 2–5 P.M.	Child Health A 9–10 A.M. Vital Statistics A1 10–11 A.M. Control of Syphilis and Gonorrhea 11 A.M.–12 M. Bacteriology A 2–5 P.M.
Tuesday	Nutrition A 9–10 A.M. Sanitation A 10 A.M.–12 M. Bacteriology 32 (Immunity) 2–3 P.M. Industrial Hygiene B (Laboratory) 2–5 P.M.	Nutrition A 9–10 A.M. Sanitation A 10 A.M.–12 M. Bacteriology 32 (Immunity) 2–3 P.M. Industrial Hygiene B (Laboratory) 2–5 P.M.
Wednesday	Child Health A 9–10 A.M. Vital Statistics A1 10 A.M.–12 M. Bacteriology A 2–5 P.M.	Child Health A 9–10 A.M. Vital Statistics A1 10 A.M.–12 M. Bacteriology A 2–5 P.M.
Thursday	Health Education Methods A 9–10 A.M. Sanitation A 10 A.M.–12 M. Bacteriology 32 (Immunity) 2.30–3.30 P.M. Industrial Hygiene B (Laboratory) 2.30–5 P.M.	Health Education Methods A 9–10 A.M. Sanitation A 10 A.M.–12 M. Bacteriology 32 (Immunity) 2.30–3.30 P.M. Industrial Hygiene B (Laboratory) 2.30–5 P.M.
Friday	Child Health A 9–10 A.M. Vital Statistics A1 10 A.M.–12 M. Bacteriology A 2–5 P.M.	Child Health A 9–10 A.M. Vital Statistics A1 10 A.M.–12 M. Bacteriology A 2–5 P.M.
Saturday	Nutrition A 9–10 A.M. Gonorrhea 10–11 A.M. Technique of Medical Writing 11 A.M.–12 M.	Nutrition A 9–10 A.M. Control of Syphilis and Gonorrhea 10–11 A.M. Technique of Medical Writing 11 A.M.–12 M.

## TABULAR VIEW

FIFTH MONTH (January 27–February 22)		SIXTH MONTH (February 24–March 22)	
Monday	Control of Malaria 9–10 A.M.	Communicable Diseases A 9–10 A.M.	Epidemiology A 10–11 A.M.
	Epidemiology A 10–11 A.M.		
	Public Health Practice A 11 A.M.–12 M.	Public Health Practice A 11 A.M.–12 M.	Public Speaking and Radio Technique 2–4 P.M.
	Public Speaking and Radio Technique 2–4 P.M.		
	Industrial Hygiene A 2–4 P.M.	Industrial Hygiene A 2–4 P.M.	Child Health B 2–5 P.M.
	Child Health B 2–5 P.M.		
Tuesday	Ecology A 9–10 A.M.	Ecology A 9–10 A.M.	Epidemiology A 10–11 A.M.
	Epidemiology A 10–11 A.M.		
	Vital Statistics A2 11 A.M.– 12.30 P.M.	Vital Statistics A2 11 A.M.– 12.30 P.M.	Parasitology and Tropical Medicine A 2–5 P.M.
	Parasitology and Tropical Medicine A 2–5 P.M.		
	Industrial Hygiene B (Lab- oratory) 2–5 P.M.	Industrial Hygiene B (Lab- oratory) 2–5 P.M.	Sanitation B (Laboratory) 2–5 P.M.
	Sanitation B (Laboratory) 2–5 P.M.		
	Bacteriology 34 (Viruses) 2–5 P.M. (Feb. 4, 11, 18)	Bacteriology 34 (Viruses) 2–5 P.M. (Feb. 25)	Public Health Practice A 9–10 A.M.
Wednesday	Public Health Practice A 9–10 A.M.	Epidemiology A 10 A.M.– 12.30 P.M.	Public Speaking and Radio Technique 2–4 P.M.
	Epidemiology A 10 A.M.– 12.30 P.M.		
	Public Speaking and Radio Technique 2–4 P.M.	Industrial Hygiene A 2–4 P.M.	
	Industrial Hygiene A 2–4 P.M.		

## TABULAR VIEW

FIFTH MONTH ( <i>cont.</i> ) (January 27–February 22)		SIXTH MONTH ( <i>cont.</i> ) (February 24–March 22)	
Thursday	Child Health B 9 A.M.–12 M.	Child Health B 9 A.M.–12 M.	
	Field Training A 9 A.M.–12 M.	Field Training A 9 A.M.–12 M.	
	Epidemiology B 9–11 A.M.	Epidemiology B 9–11 A.M.	
	Vital Statistics A2 11 A.M.–12.30 P.M.	Vital Statistics A2 (Optional Laboratory Period) 11 A.M.–12.30 P.M.	
	Parasitology and Tropical Medicine A 2.30–5 P.M.	Parasitology and Tropical Medicine A 2.30–5 P.M.	
	Industrial Hygiene B (Laboratory) 2.30–5 P.M.	Industrial Hygiene B (Laboratory) 2.30–5 P.M.	
Friday	Sanitation B (Laboratory) 2.30–5 P.M.	Sanitation B (Laboratory) 2.30–5 P.M.	
	Bacteriology 34 (Viruses) 2.30–5 P.M. (Feb. 6, 13, 20)	Bacteriology 34 (Viruses) 2.30–5 P.M. (Feb. 27)	
	Epidemiology A 9 A.M.–12.30 P.M.	Communicable Diseases A 9–10 A.M.	
Saturday	Industrial Hygiene A 2–4 P.M.	Epidemiology A 10 A.M.–12.30 P.M.	
	Control of Malaria 4–5 P.M.	Industrial Hygiene A 2–4 P.M.	
	Ecology A 9–10 A.M.	Communicable Diseases A 3–5 P.M.	
Saturday	Public Health Practice A 10–11 A.M.	Ecology A 9–10 A.M.	
	Vital Statistics A2 11 A.M.–12.30 P.M.	Public Health Practice A 10–11 A.M.	
		Vital Statistics A2 11 A.M.–12.30 P.M.	

## TABULAR VIEW

SEVENTH MONTH (March 24-April 26) Recess March 30-April 6		EIGHTH MONTH (April 28-May 31) Examination and Reading Period, May 26-31	
Monday	Communicable Diseases A 9-10 A.M.	Communicable Diseases A 9-10 A.M.	
	Epidemiology A 10-11 A.M.	Epidemiology A 10-11 A.M.	
	Public Health Practice A 11 A.M.-12 M.	Public Health Practice 11 A.M.-12 M.	
	Public Speaking and Radio Technique 2-4 P.M.	Applied Immunology 33A 2-5 P.M.	
	Industrial Hygiene A 2-4 P.M.	Syphilis Clinic 2-5 P.M.	
	Child Health B 2-5 P.M.	Child Health B 2-5 P.M.	
Tuesday	Ecology A 9-10 A.M.	Ecology A 9-10 A.M.	
	Epidemiology A 10-11 A.M.	Epidemiology A 10-11 A.M.	
	Vital Statistics A2 11 A.M.- 12.30 P.M.	Vital Statistics A2 11 A.M.- 12.30 P.M.	
	Parasitology and Tropical Medicine A 2-5 P.M.	Epidemiology B 2-5 P.M.	
	Industrial Hygiene B (Lab- oratory) 2-5 P.M.	Field Training A 2-5 P.M.	
	Sanitation B (Laboratory) 2-5 P.M.	Syphilis Clinic 2-5 P.M.	
Wednesday	Public Health Practice A 9-10 A.M.	Public Health Practice A 9-10 A.M.	
	Epidemiology A 10 A.M.- 12.30 P.M.	Epidemiology A 10 A.M.- 12.30 P.M.	
	Public Speaking and Radio Technique 2-4 P.M.	Applied Immunology 33A 2-5 P.M.	
	Industrial Hygiene A 2-4 P.M.	Syphilis Clinic 2-5 P.M.	



## TABULAR VIEW

SEVENTH MONTH (*cont.*)(*March 24-April 26*)

Recess March 30-April 6

EIGHTH MONTH (*cont.*)(*April 28-May 31*)Examination and Reading  
Period, May 26-31

Thursday	Child Health B 9 A.M.-12 M. Field Training A 9 A.M.-12 M. Epidemiology B 9-11 A.M. Vital Statistics A2 (Optional Laboratory Period) 11 A.M.- 12.30 P.M. Parasitology and Tropical Medicine A 2.30-5 P.M. Industrial Hygiene B (Lab- oratory) 2.30-5 P.M. Sanitation B (Laboratory) 2.30-5 P.M.	All Day 9 A.M.-5 P.M. Child Health B Field Training A Epidemiology B Industrial Hygiene Field Trips Syphilis Clinic 2-5 P.M.
Friday	Communicable Diseases A 9-10 A.M. Epidemiology A 10 A.M.- 12.30 P.M. Industrial Hygiene A 2-4 P.M. Communicable Diseases A 3-5 P.M.	Communicable Diseases A 9-10 A.M. Epidemiology A 10 A.M.- 12.30 P.M. Applied Immunology 33A 2-5 P.M. Communicable Diseases A 3-5 P.M. Syphilis Clinic 2-5 P.M.
Saturday	Ecology A 9-10 A.M. Public Health Practice A 10-11 A.M. Vital Statistics A2 11 A.M.- 12.30 P.M.	Ecology A 9-10 A.M. Public Health Practice A 10-11 A.M. Vital Statistics A2 11 A.M.- 12.30 P.M.

Final Comprehensive Examinations, June 2 and 3, 1941









